DATASHEET
FUJITSU PRIMERGY BX620 S5 DUAL-SOCKET SERVER BLADE

ENERGY-EFFICIENT AND HIGH-PERFORMANCE VIRTUALIZATION PLATFORM

The PRIMERGY BX Blade Servers are the ideal choice for data center solutions of today and tomorrow. Our blade servers provide maximum performance and maximum redundancy, but with only minimum space requirements, low power consumption and a reduction in the time and effort required for cabling. The PRIMERGY BX system family is designed to share components between chassis in order to react quickly and easily to changing business requirements. Storage and server blades can be added without any extra effort, as would be needed when cabling or adding management software. You can use the same applications, rely on the same server and storage components and establish connections to the same networks. The PRIMERGY BX Blade Servers are flexible and have complete control via a central administration instance that is redundant in design; they minimize administrative time and effort, freeing you of time-consuming administration tasks. Our build-to-order process ensures that only completely installed and previously tested solutions are supplied, which have been precisely adapted to individual requirements and which will grow with future business requirements.

PRIMERGY BX620 S5

The Fujitsu PRIMERGY BX620 S5 dual-socket server blade is the fifth generation of highly compact and powerful BX620 server blades. The server blade offers state-of-the-art technologies, such as Dual- and Quad-Core processors from the very latest generation of Intel® Xeon® 5500 processors, DDR3 memory modules with powerful 3-channel architecture per CPU, modular hard disk controller configuration and 2.5 inch SAS, SATA or SSD disks. Due to the high memory capacity of up to 96GB (12 DIMM slots) and a bus speed of up to 1.333 MHz, the BX620 S5 is ideally suited for a range of applications that require high availability and flexibility. High energy efficiency and user-friendliness as well as the support of industry standard virtualization technologies make the PRIMERGY BX620 S5 the ideal platform for Dynamic Infrastructures. The Cool-safe™ design simultaneously ensures lower energy consumption and reduced operating costs.

The modular disk controller concept with three storage module versions can create different configurations with SAS and SATA hard disks for various scenarios. The configuration options range from the low-price platform with SATA disks up to the high-end platform with SAS disks and an SAS storage module with RAID5 and Cache/iTBBU. Six Onboard Ethernet channels with iSCSI support and - as an option - two fibre channels or two additional Ethernet channels are available as communication interfaces. Security functions in the BIOS set-up protect the data on the server blade from non-authorized changes.

The PRIMERGY BX620 S5 server blade uses a slot in the BX600 S3 base unit and can be installed and used together with other server blade modules in one chassis.

FEATURES AND BENEFITS

MAIN FEATURES	BENEFITS
POWERFUL ARCHITECTURE	
■ Up to two Dual- or Quad-Core processors with Intel® Xeon® 5500 series and up to 2.93 GHz.	■ Increased productivity as a result of higher processor performance. ■ Significant improvements in comparison to the previous Dual- and Quad-Core processor versions.
SERVER MANAGEMENT	
■ Irrespective of the system status, ServerView Operations Manager enables comprehensive management of all servers within the network from a central console.	■ The PRIMERGY ServerView Suite simplifies the installation and monitoring of the servers to be managed and their components. For example, the analysis function is used to project any exceeding of threshold values or resource bottlenecks. Event Management can be used to plan the actions that are to be taken when a particular situation is detected in the analysis phase.
HIGH MEMORY CAPACITY	
■ Up to 96GB RAM with DDR3 technology and 12 DIMM slots	■ Scalable memory for computing-intensive applications and virtualized environments.
LARGE SELECTION OF HARD DISK MODULES	
■ Support of two 2.5 inch hot-plug SATA, SAS or solid state drives (SSD).	■ The hard disk modules enable the fast replacement of internal drives in running operation. ■ Extension of the local hard disk capacity up to 630 GB per server blade.
ENERGY-EFFICIENT OPERATIONS	
■ Integrated Cool-safe™ technology and Green IT design features	■ Efficient power supply units and innovative ServerView Power Management functions help to save power and reduce energy costs for the entire lifecycle. ■ An intelligent system design creates efficient cooling within the entire blade server which keeps the main parts cool despite the most demanding of conditions.
SIMPLE REMOTE MANAGEMENT	
■ Integrated Remote Management Controller iRMC S2 with integrated graphics controller and Joint Management LAN to the onboard LAN controller with IPMI 2.0 support.	■ Comprehensive control of the server blade irrespective of the system status. ■ Autonomous remote monitoring, diagnostics and maintenance.
HIGH AVAILABILITY AND DATA SECURITY	
■ ASR&R (Automatic Server Reconfiguration and Restart) restarts the system in the event of a fault and automatically isolates the faulty system components. ■ The Prefailure Detection and Analyze technology (PDA) analyzes and monitors all the components that are important for system reliability.	■ Provide information about faulty components without interrupting system operations. ■ Any failures in individual components can be solved quickly; precise monitoring ensures that failures can be avoided in an active manner.
CUSTOMER SELF SERVICE (CSS)	
■ The Customer Self Service concept (CSS) is used to identify the affected component in specific error situations and to have it replace itself.	■ Important simplification of repair and maintenance work and the simultaneous opportunity to save costs. ■ Local Service Panel (LSP) or Local Service Display (LSD) indicates the hardware component that must be replaced.

TECHNICAL DETAILS

MAINBOARD	
Mainboard type	D 2686
Chipset	Intel® 5500
Processor quantity and type	1 - 2 x Intel® Xeon® processor 5500 series
PROCESSOR	Intel® Xeon® processor E5502 (2C/2T, 1.86 GHz, SLC: 2 x 256 KB, TLC: 4 MB, Turbo: No, 4.8 GT/s, Mem bus: 800 MHz, 80 W)
	Intel® Xeon® processor E5504 (4C/4T, 2.00 GHz, SLC: 4 x 256 KB, TLC: 4 MB, Turbo: No, 4.8 GT/s, Mem bus: 800 MHz, 80 W)
	Intel® Xeon® processor E5506 (4C/4T, 2.13 GHz, SLC: 4 x 256 KB, TLC: 4 MB, Turbo: No, 4.8 GT/s, Mem bus: 800 MHz, 80 W)
	Intel® Xeon® processor E5520 (4C/8T, 2.26 GHz, SLC: 4 x 256 KB, TLC: 8 MB, Turbo: 1/1/2/2, 5.86 GT/s, Mem bus: 1066 MHz, 80 W)
	Intel® Xeon® processor E5530 (4C/8T, 2.40 GHz, SLC: 4 x 256 KB, TLC: 8 MB, Turbo: 1/1/2/2, 5.86 GT/s, Mem bus: 1066 MHz, 80 W)
	Intel® Xeon® processor E5540 (4C/8T, 2.53 GHz, SLC: 4 x 256 KB, TLC: 8 MB, Turbo: 1/1/2/2, 5.86 GT/s, Mem bus: 1066 MHz, 80 W)
	Intel® Xeon® processor L5506 (4C/4T, 2.13 GHz, SLC: 4 x 256 KB, TLC: 4 MB, Turbo: No, 4.8 GT/s, Mem bus: 800 MHz, 60 W)
	Intel® Xeon® processor L5520 (4C/8T, 2.26 GHz, SLC: 4 x 256 KB, TLC: 8 MB, Turbo: 1/1/2/2, 5.86 GT/s, Mem bus: 1066 MHz, 60 W)
	Intel® Xeon® processor L5530 (4C/8T, 2.40 GHz, SLC: 4 x 256 KB, TLC: 8 MB, Turbo: 1/1/2/2, 5.86 GT/s, Mem bus: 1066 MHz, 60 W)
	Intel® Xeon® processor X5550 (4C/8T, 2.66 GHz, SLC: 4 x 256 KB, TLC: 8 MB, Turbo: Yes, 6.4 GT/s, Mem bus: 1333 MHz, 95 W)
	Intel® Xeon® processor X5560 (4C/8T, 2.80 GHz, SLC: 4 x 256 KB, TLC: 8 MB, Turbo: 2/2/3/3, 6.4 GT/s, Mem bus: 1333 MHz, 95 W)
	Intel® Xeon® processor X5570 (4C/8T, 2.93 GHz, SLC: 4 x 256 KB, TLC: 8 MB, Turbo: 2/2/3/3, 6.4 GT/s, Mem bus: 1333 MHz, 95 W)
Memory slots	12 (3 channels per CPU with 2 slots each)
Memory slot type	DIMM (DDR3)
Memory capacity (min. - max.)	1 GB - 96 GB
Memory protection	Memory Mirroring support SDDC (Chipkill™)
MEMORY MODULES INDEPENDENT MODE	2 GB (1 module(s) 2 GB) DDR3, registered, 1066 MHz, PC3-8500, DIMM
	2 GB (1 module(s) 2 GB) DDR3, registered, 1333 MHz, PC3-10600, DIMM
	2 GB (1 module(s) 2 GB) DDR3, unbuffered, 1066 MHz, PC3-8500, DIMM
	4 GB (1 module(s) 4 GB) DDR3, registered, 1066 MHz, PC3-8500, DIMM
	4 GB (1 module(s) 4 GB) DDR3, registered, 1333 MHz, PC3-10600, DIMM
	8 GB (1 module(s) 8 GB) DDR3, registered, 1066 MHz, PC3-8500, DIMM
	8 GB (1 module(s) 8 GB) DDR3, registered, 1333 MHz, PC3-10600, DIMM
MEMORY MODULES MIRRORED MODE	4 GB (2 module(s) 2 GB) DDR3, registered, 1066 MHz, PC3-8500, DIMM
	4 GB (2 module(s) 2 GB) DDR3, registered, 1333 MHz, PC3-10600, DIMM
	8 GB (2 module(s) 4 GB) DDR3, registered, 1066 MHz, PC3-8500, DIMM
	8 GB (2 module(s) 4 GB) DDR3, registered, 1333 MHz, PC3-10600, DIMM
	16 GB (2 module(s) 8 GB) DDR3, registered, 1066 MHz, PC3-8500, DIMM
	16 GB (2 module(s) 8 GB) DDR3, registered, 1333 MHz, PC3-10600, DIMM

MEMORY MODULES PERFORMANCE MODE	6 GB (3 module(s) 2 GB) DDR3, registered, 1066 MHz, PC3-8500, DIMM
	6 GB (3 module(s) 2 GB) DDR3, registered, 1333 MHz, PC3-10600, DIMM
	12 GB (3 module(s) 4 GB) DDR3, registered, 1066 MHz, PC3-8500, DIMM
	12 GB (3 module(s) 4 GB) DDR3, registered, 1333 MHz, PC3-10600, DIMM
	24 GB (3 module(s) 8 GB) DDR3, registered, 1066 MHz, PC3-8500, DIMM
	24 GB (3 module(s) 8 GB) DDR3, registered, 1333 MHz, PC3-10600, DIMM
INTERFACES	
USB ports	2 x USB at the front via special cable
Graphics (15-pin)	1 x VGA at the front via special cable
LAN / Ethernet (RJ-45)	6 x Gbit Ethernet via Midplane at GbE Switch blade or GbE Pass-Thru blade or GbE IBP
Service LAN (RJ45)	1 x dedicated service LAN port for iRMC S2 (10/100 Mbit/s) Service LAN traffic can be switched to shared onboard Gbit LAN port
I/O CONTROLLER ON BOARD	
LAN Controller	Intel® 82575EB , 2 x 10/100/1000 Mbit/s Ethernet (I/O acceleration), 3 x 2-channel LAN controller on-board
Remote Management Controller	Integrated Remote Management Controller (iRMC S2, 32 MB attached memory incl. graphics controller)
Onboard Controller notes	pluggable Storage-Modules for internal HDDs
Trusted Platform Module (TPM)	Infineon / 1.2 (option)
SLOTS	
PCI-Express x8	1 x BX6x0 Mezzanine direct connection on Mainboard
Slot Notes	1x for SAS Storage Module (See under Components -> SAS controller)
General system information	
OPERATING PANEL	
Operating buttons	On/off switch
Status LEDs	Power (amber / green) System status (green / orange) Console Port (green / amber) LAN connection (green) Hard disks access (green) Mezzanine card status (green)
BIOS	
BIOS features	ROM based setup utility Recovery BIOS BIOS settings save and restore Local BIOS update from USB device Online update tools for main Windows and Linux versions Local and remote update via ServerView Update Manager SMBIOS V2.4 Remote PXE boot support Remote iSCSI boot support
CERTIFIED OR SUPPORTED OPERATING SYSTEMS	
Certified or supported operating systems	Microsoft® Windows Server® 2008 R2 Microsoft® Windows Server® 2008 Microsoft® Windows Storage Server® 2008 Microsoft® Windows Server® 2003 R2 Novell SUSE Linux Enterprise Server Red Hat Enterprise Linux Citrix® XenServer™ VMware Infrastructure Note: Support of other Linux derivatives on demand
Operating system release link	http://docs.ts.fujitsu.com/dl.aspx?id=a9e600b9-e4cb-4f48-aa41-632f69058421

SERVER MANAGEMENT	
Standard	ServerView Suite: SV Installation Manager SV Operation Manager SV RAID Manager SV Update Management SV Power Management SV Agents ASR&R Automatic Server Recovery and Restart PDA Prefailure Detection and Anaylsis
Server Management notes	Regarding Operating System dependencies for ServerView Suite Software Products see dedicated Product Data sheets.
DIMENSIONS / WEIGHT	
Dimensions (W x D x H)	286 x 470 x 43 mm
Dimension notes	(Depth: 520 mm incl. handles and plugs)
Weight	up to 7,5 kg
Weight notes	Actual weight may vary depending on configuration
Noise emission	
Operating relative humidity	10 - 85 % (non condensing)
Temperature note	In accordance with the corresponding PRIMERGY BX600 system unit
Operating environment	FTS 04230 – Guideline for Data Center (installation locations)
Operating environment Link	http://docs.ts.fujitsu.com/dl.aspx?id=e4813edf-4a27-461a-8184-983092c12dbe
ELECTRICAL VALUES	
Active power (max. configuration)	331 W
Heat emission	1191.6 kJ/h (1129.4 BTU/h)
COMPLIANCE	
Germany	GS
Europe	CE Class A *
USA/Canada	CSAc/us ULc/us ICES-003 Class A FCC Class A
Global	CB RoHS (Restriction of hazardous substances) WEEE (Waste electrical and electronical equipment)
Japan	VCCI
Australia/New Zealand	C-Tick
Taiwan	BSMI
Compliance notes	In combination with corresponding PRIMERGY BX system unit * Warning: This is a class A product. In a domestic environment this product may cause radio interference in which case the user may be required to take adequate measures.
Compliance link	https://sp.ts.fujitsu.com/sites/certificates/default.aspx

COMPONENTS

HARD DISK DRIVES	SSD SATA, 3 Gb/s, 64 GB, SLC, hot-plug, 2.5-inch, enterprise
	SSD SATA, 3 Gb/s, 32 GB, SLC, hot-plug, 2.5-inch, enterprise
	HDD SATA, 3 Gb/s, 500 GB, 7200 rpm, hot-plug, 2.5-inch, business critical
	HDD SATA, 3 Gb/s, 320 GB, 5400 rpm, hot-plug, 2.5-inch, economic
	HDD SATA, 3 Gb/s, 160 GB, 7200 rpm, hot-plug, 2.5-inch, business critical
	HDD SATA, 3 Gb/s, 160 GB, 5400 rpm, hot-plug, 2.5-inch, economic
	HDD SAS, 3 Gb/s, 300 GB, 10000 rpm, hot-plug, 2.5-inch, enterprise
	HDD SAS, 3 Gb/s, 146 GB, 15000 rpm, hot-plug, 2.5-inch, enterprise
	HDD SAS, 3 Gb/s, 146 GB, 10000 rpm, hot-plug, 2.5-inch, enterprise
	HDD SAS, 3 Gb/s, 73 GB, 15000 rpm, hot-plug, 2.5-inch, enterprise
Hard disk notes	One Gigabyte equals one billion bytes, when referring to hard disk drive capacity.
SCSI / SAS CONTROLLER	SAS Ctrl. 3 Gb 4 ports int. / 4 ports ext.
SAS STORAGE MODULES	Storage module, HDD SAS 3 Gb, RAID level: 0, 1, 10, 256 MB Cache, inclusive BBU
	Storage module, HDD SAS 3 Gb, RAID level: 0, 1, 10, PCIe slot
	Storage module, HDD SAS 3 Gb, RAID level: 0, 1, 10,
RAID CONTROLLER	RAID 5/6 Ctrl., SAS/SATA 3 Gb, LSI MegaRAID SAS8880E, 8 ports ext. RAID level: 0, 1, 10, 5, 50, 6, 60, 512 MB Cache, inclusive BBU (1078)
FIBRE CHANNEL CONTROLLER	Fibre Channel Host Bus Adapter 2 x 4 Gb Emulex LPe11002 MMF LC-style
	Fibre Channel Mezzanine Card 2 x 4 Gb BX600-FC42E
	Ethernet Mezzanine Card 2 x 1 Gb
LAN CONTROLLER	Ethernet Ctrl. 2 x 1 Gb Intel® PRO/1000 PT Dual Port Server Adapter

WARRANTY	
Standard Warranty	3 years
Service level	On-site Service (depending on country)
MAINTENANCE AND SUPPORT SERVICES - THE PERFECT EXTENSION	
Recommended Service	7x24, Onsite Response Time: 4h - For locations outside of EMEA please contact your local Fujitsu partner.
Spare Parts availability	5 years
Service Weblink	http://ts.fujitsu.com/Supportservice

FUJITSU PLATFORM SOLUTIONS

In addition to Fujitsu PRIMERGY BX620 S5, Fujitsu provides a range of platform solutions. They combine reliable Fujitsu products with the best in services, know-how and worldwide partnerships.

Dynamic Infrastructures
With the Fujitsu Dynamic Infrastructures approach, Fujitsu offers a full portfolio of IT products, solutions and services, ranging from clients to datacenter solutions, Managed Infrastructure and Infrastructure as-a-Service. How much you benefit from Fujitsu technologies and services depends on the level of cooperation you choose. This takes IT flexibility and efficiency to the next level.

Computing Products
www.fujitsu.com/global/services/computing/

Software
www.fujitsu.com/software/

MORE INFORMATION

Learn more about Fujitsu PRIMERGY BX620 S5, please contact your Fujitsu sales representative or Fujitsu Business partner, or visit our website. http://ts.fujitsu.com/Primergy

FUJITSU GREEN POLICY INNOVATION

Fujitsu Green Policy Innovation is our worldwide project for reducing burdens on the environment. Using our global know-how, we aim to resolve issues of environmental energy efficiency through IT.
Please find further information at http://www.fujitsu.com/global/about/environment/

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